

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES
OF THE STATE OF MONTANA

In the Matter of the Application
of Anaconda Aluminum Division,
Anaconda Industries Division of
The Anaconda Company for Variance
from Fluoride and Particulate
Regulations Applicable to the
Operations of its Aluminum Reduc-
tion Plant at Columbia Falls,
Montana.

STIPULATION FOR COMPLIANCE SCHEDULE,
MONITORING PROGRAM AND VARIANCE

The Department of Health and Environmental Sciences of the
State of Montana (DEPARTMENT) and Anaconda Aluminum Division,
Anaconda Industries Division of The Anaconda Company (ANACONDA)
do hereby stipulate and agree as follows:

I.

On July 16, 1976, the DEPARTMENT issued its Construction
Permit No. 972 to ANACONDA authorizing an alternative emission
control technology that would bring the Columbia Falls aluminum
reduction plant into compliance with the fluoride and particulate
emission standards of the State of Montana. The alternative emis-
sion control technology was outlined in the Conceptual Control
Plan Update of July 8, 1976, and involved the application of
technology owned by Sumitomo Aluminum Smelting Co., Ltd. (SUMI-
TOMO) and Aluminum Company of America (ALCOA).

II.

On September 2, 1976, and on November 12, 1976, ANACONDA
entered into agreements with SUMITOMO and ALCOA for the purchase
of their technology. The plant conversion project required to
implement this technology included the installation of new

aluminum reduction cells throughout the ANACONDA plant. Under the Conceptual Control Plan Update, the conversion of all 600 aluminum reduction cells would be complete on or about June 15, 1979.

III.

In the year 1977, ANACONDA began experiencing premature cathode failures of the newly started SUMITOMO cathodes. By the end of June, 1977, three cells had failed and nine others were imminent. By the end of December, 1977, fourteen cells had failed and many others showed symptoms of early failure.

IV.

In early 1978, premature cathode failures continued and an anode problem appeared. As a result of these problems, the cathode rebuild program was halted around May 1, 1978. Between May and August twenty-four anodes were lost. By the end of August, 1978, a total of sixty SUMITOMO cathodes had failed.

V.

On August 8, 1978, ANACONDA advised the DEPARTMENT of the premature cathode failures and anode problems as outlined in the attached Exhibit "A". Communications between ANACONDA and the DEPARTMENT relating to the effect of the cathode failures and anode problems upon the compliance schedule called for under the Conceptual Control Plan Update accurately predicted that the full and complete conversion to the SUMITOMO technology would not be feasible until May of 1980 and that the optimization of the technology would not occur before July 1, 1980.

VI.

As of July 1, 1979, the basic project remains on schedule

with the exception of the cathode conversion. At this point it is estimated that approximately 800 cathodes will have to be built rather than 600, due primarily to the premature cathode failures. Also, because of the above mentioned anode problems and the resultant curtailment of the cathode rebuild program last summer, approximately 38 additional cathodes were lost from the schedule. Recently, five more cathodes were lost from the schedule due to a cathode pitch system failure. The combined effect of these problems has delayed the conversion schedule by forty-three weeks.

VII.

Approximately 510 SUMITOMO cathodes are operating. The basic SUMITOMO technology package which is 1) cathode design and construction; 2) anode design, operation and paste composition; 3) cell start-up and operation; 4) automatic crust breaking design, operation and control; and 5) computer control program, is installed on all SUMITOMO cathodes. The remaining 90 cathodes will have the SUMITOMO program applied to them as the cathodes are rebuilt and put in operation.

In addition, the dry paste (paste composition) technology has been applied to all 600 cells and portions of the computer control program are applied to old cells as well as SUMITOMO cells.

The ALCOA dry scrubber was completed on schedule in December, 1978.

VIII.

Fluoride emission levels continue to decline with the progress of the conversion program. At this time, total fluoride emissions are averaging approximately 1,238 pounds per day. This

improvement will continue with the fluoride emission average reaching the Montana standard of 864 pounds per day by June 30, 1980.

IX.

The delay in the completion of ANACONDA'S SUMITOMO technology conversion schedule was caused by circumstances beyond ANACONDA'S control and was of no demonstrable advantage to ANACONDA.

X.

ANACONDA commits to compliance with the Montana fluoride and particulate emission standards on or before July 1, 1980.

The granting of a variance from the Montana fluoride and particulate emission standards for the period July 1, 1979, through June 30, 1980, does not constitute a danger to public health and safety; and, compliance with the emission standards from which exemption is sought would produce hardship without equal or greater benefits to the public.

XI.

The DEPARTMENT and ANACONDA agree that accurate and reliable methods of monitoring fluoride and particulate emissions must be developed for ANACONDA'S Columbia Falls plant. ANACONDA agrees to accept an assessment by the DEPARTMENT of the maximum application fee of \$80,000.00 as provided by Section 75-2-212 (6) MCA. These funds shall be applied first to the costs associated with ANACONDA'S Application for Variance and, in addition, to the retaining of qualified consultants by the DEPARTMENT, with the cooperation of ANACONDA, to develop such monitoring methods.

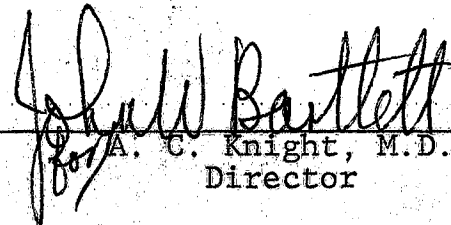
Any balance of funds remaining thereafter shall be refunded

to ANACONDA by the DEPARTMENT upon completion of that project.

DATED this 28th day of September, 1979.

DEPARTMENT OF HEALTH AND ENVIRON-
MENTAL SCIENCES OF THE STATE OF
MONTANA

By


A. C. Knight, M.D.
Director

ANACONDA ALUMINUM DIVISION, ANA-
CONDA INDUSTRIES DIVISION of THE
ANACONDA COMPANY

By

